

AMENDMENT TO THE CLAIMS

The following is a detailed listing of all claims that are, or were, in the Application.

1. (Original) An integrated circuit die comprising:
functional circuitry;
a plurality of bond pads, each bond pad associated with a respective portion of the functional circuitry and for bonding the respective portion of the functional circuitry;
at least one probe pad for testing of the functional circuitry; and
multiplexing circuitry between the probe pad and the bond pads, the multiplexing circuitry for multiplexing signals between the probe pad and each of the respective portions of the functional circuitry, thus allowing the respective portions of functional circuitry to be tested using the probe pad and without any contact of the plurality of bond pads by a probe needle.
2. (Original) The integrated circuit die of Claim 1 wherein the multiplexing circuitry comprises a plurality of switching devices, each switching device coupled between the probe pad and a respective one of the bond pads.
3. (Previously presented) An integrated circuit die comprising:
functional circuitry;
a plurality of bond pads, each bond pad associated with a respective portion of the functional circuitry and for bonding the respective portion of the functional circuitry;
at least one probe pad for testing of the functional circuitry;
multiplexing circuitry between the probe pad and the bond pads, the multiplexing circuitry for multiplexing signals between the probe pad and each of the respective portions of the functional circuitry, thus allowing the respective portions

of functional circuitry to be tested using the probe pad and without any contact of the plurality of bond pads by a probe needle, and

a plurality of tri-state drivers for driving signals in the integrated circuit die, each tri-state driver coupled between a respective one of the bond pads and an associated portion of functional circuitry.

4. (Previously presented) An integrated circuit die comprising:
functional circuitry;

a plurality of bond pads, each bond pad associated with a respective portion of the functional circuitry and for bonding the respective portion of the functional circuitry;

at least one probe pad for testing of the functional circuitry;

multiplexing circuitry between the probe pad and the bond pads, the multiplexing circuitry for multiplexing signals between the probe pad and each of the respective portions of the functional circuitry, thus allowing the respective portions of functional circuitry to be tested using the probe pad and without any contact of the plurality of bond pads by a probe needle, and

a respective input/output buffer for each bond pad.

5. (Original) The integrated circuit die of Claim 1 wherein the functional circuitry comprises memory circuitry.

6. (Original) The integrated circuit die of Claim 1 wherein the functional circuitry comprises logic circuitry.

7. (Original) The integrated circuit die of Claim 1 wherein the probe pad is substantially the same size as each bond pad.

8. (Original) The integrated circuit die of Claim 1 wherein the probe pad is larger than each bond pad.

9. (Original) The integrated circuit die of Claim 1 wherein the distance between adjacent bond pads is about 50 microns or less.

10. (Original) The integrated circuit die of Claim 1 wherein the probe pad is provided along one edge of the integrated circuit die and the bond pads are provided at an opposing edge of the integrated circuit die.

11. (Cancel) A method of testing functional circuitry of an integrated circuit having a test pad and a plurality of bond pads, each bond pad associated with a respective portion of the functional circuitry and for bonding out the respective portions of the functional circuitry, the method comprising:

contacting the test pad with a probe needle; and
conveying a signal between the probe needle and at least one respective portion of the functional circuitry via the test pad, thus allowing the respective portions of functional circuitry to be tested using the test pad and without any contact of the plurality of bond pads by the probe needle.

12. (Cancel) The method of claim 11 wherein the signal is input from the probe needle to the integrated circuit die and further comprising demultiplexing the input signal into the portions of the functional circuitry.

13. (Cancel) The method of claim 11 wherein the signal is output from at least one portion of the functional circuitry and further comprising driving the signal out of the integrated circuit device.

14. (Cancel) The method of claim 11 wherein the signal is output from at least one portion of the functional circuitry and further comprising multiplexing the output signal.

15. (Cancel) The method of Claim 11 wherein the test pad is a bonding pad.

16. (Cancel) The method of Claim 11 wherein the test pad is a probe pad.

17. (Cancel) The method of Claim 11 wherein the test pad is located on the integrated circuit die remote from the bonding pads.

18-27. (Cancelled)

28. (Cancel) An integrated circuit die comprising:
functional circuitry;
means for bonding wires to the functional circuitry;
means for applying one or more test signals to the functional circuitry, such that the means for bonding are not contacted by probe pins when the integrated circuit die is tested.

29-32. (Cancelled)

33. (Original) A method of testing functional circuitry of an integrated circuit die comprising:

providing a probe pad on the integrated circuit die for a plurality of bonding pads, the probe pad for testing the functional circuitry, the bonding pads for bonding out respective portions of the functional circuitry; and

providing switching circuitry on the integrated circuit die for multiplexing signals between the probe pad and the respective portions of the functional circuitry,

thereby allowing the respective portions of functional circuitry to be tested without any contact of the bonding pads by a probe needle.

34. (Original) The method of Claim 33 wherein the switching circuitry comprises a multiplexer.

35. (Original) The method of Claim 33 wherein the switching circuitry comprises a demultiplexer.

36. (Original) The method of Claim 33 wherein the probe pad is substantially the same size as each bonding pad.

37. (Original) The method of Claim 33 wherein the probe pad is larger than each bonding pad.

38. (Original) The method of Claim 33 wherein the probe pad is provided along one edge of the integrated circuit die and the bonding pads are provided at an opposing edge of the integrated circuit die.